

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1-10. (cancelled)

11. (previously presented) An ultrasonic welder comprising:

an ultrasonically agitated welding tip having a welding surface which extends in a plane;

a tip guide juxtaposed with the welding tip and having a guide surface extending perpendicular to the welding surface;

an anvil atop of the tip guide and having an anvil surface extending parallel to the welding surface;

a gathering block having a gathering surface extending parallel to the guide surface; and

a controller actuating the gathering block to move from an unloading position to a predetermined loading position, wherein the gathering surface is spaced apart from the guide surface at a predetermined distance to form a workpiece nest defined between the anvil, welding, gathering and guide surfaces, and the controller actuates the gathering block to move in a time-controlled manner away from the working space back to the unloading position after welding has been completed.

12. (withdrawn) The ultrasonic welder defined in claim 11 wherein the anvil is controllably movable toward the welding tip to exert a preset pressure.

13. (previously presented) The ultrasonic welder defined in claim 11 wherein the controller has a memory unit displacing the gathering block to the predetermined loading position in response to data containing a diameter of the workpiece.

14. (original) The ultrasonic welder defined in claim 11 wherein the width of the working space is sufficient to stack at least one column of the workpieces flanked and supported by the guide and gathering surfaces.

15. (withdrawn) The ultrasonic welder defined in claim 11 further comprising a pressure sensor for detecting the preset pressure exerted by the anvil.

16. (previously presented) The ultrasonic welder defined in claim 11 wherein the gathering block is controllably stopped for a predetermined period of time before moving back toward the tip guide.

17. (withdrawn) The ultrasonic welder defined in claim 11 further comprising an ultrasonic horn having an end face, said welding tip having a plurality of spaced apart holes, each receiving a respective bolt fastening the welding tip to the end face.

18. (withdrawn) The ultrasonic welder defined in claim 17 wherein each of the holes has an inner periphery provided with a continuous pad made of resilient material and attached thereto to provide a buffer zone between the horn and welding tip.

19. (previously presented) An ultrasonic welder for splicing a plurality of workpieces comprising:

four anvils having meeting surfaces two of which form side faces of a workpiece nest having a preset width which is defined between the side faces of the nest spaced from one another in a predetermined loading position; and

a controller displacing at least one of the anvils forming the side faces from the predetermined loading position to an unloading position for a predetermined period of time sufficient to remove the welded workpieces and back to the predetermined loading position upon terminating of the predetermined period of time to reestablish the preset width before the workpiece nest receives new workpieces.

20. (original) The ultrasonic welder defined in claim 19, wherein one of the anvils forming the side faces of the workpiece is selected from a group consisting of gathering and tip guide blocks.

21. (previously presented) The ultrasonic welder defined in claim 19, wherein the four anvils comprise an agitated welding tip, a tip guide, an anvil and a gathering block.

22. (previously presented) The ultrasonic welder defined in claim 19 wherein the predetermined loading position is sufficient only to place the wires in a series of adjacent substantially parallel vertical columns.

23. (previously presented) The ultrasonic welder defined in claim 19 wherein the width of the predetermined loading position is determined by the formula $W=DN$, where D is the diameter of a single wire or workpiece, and N is a number of columns.

24. (currently amended) The ultrasonic welder defined in claim 19 wherein the width of the predetermined loading position corresponds to a width of the workpiece nest sufficient for stacking the wires in ~~[[a]]~~ at least one column extending substantially vertically from the welding tip.

25. (previously presented) The ultrasonic welder defined in claim 11 wherein the predetermined loading position is sufficient only to place the wires in a series of adjacent substantially parallel vertical columns.

26. (previously presented) The ultrasonic welder defined in claim 11 wherein the width of the predetermined loading position is determined by the formula $W=DN$, where D is the diameter of a single wire or workpiece, and N is a number of columns.

27. (currently amended) The ultrasonic welder defined in claim 11 wherein the width of the predetermined loading position corresponds to a width of the workpiece nest sufficient for stacking the wires in ~~[[a]]~~ at least one column extending substantially vertically from the welding tip.